**Q:-1**

**N-Queen Problem**

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**You are given N, and for a given N x N chessboard, find a way to place N queens such that no queen can attack any other queen on the chess board. A queen can be killed when it lies in the same row, or same column, or the same diagonal of any of the other queens. You have to print all such configurations.**

**Input Format :**

Line 1 : Integer N

**Output Format :**

One Line for every board configuration.

Every line will have N\*N board elements printed row wise and are separated by space

**Note : Don't print anything if there isn't any valid configuration.**

Constraints :

***1<=N<=10***

Sample Input 1:

4

Sample Output 1 :

0 1 0 0 0 0 0 1 1 0 0 0 0 0 1 0

0 0 1 0 1 0 0 0 0 0 0 1 0 1 0 0

**Q:-2**

**Rat In A Maze Problem**

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You are given a N\*N maze with a rat placed at maze[0][0]. Find and print all paths that rat can follow to reach its destination i.e. maze[N-1][N-1]. Rat can move in any direc­tion ( left, right, up and down).

Value of every cell in the maze can either be 0 or 1. Cells with value 0 are blocked means rat can­not enter into those cells and those with value 1 are open.

**Input Format**

Line 1 : Integer N

Next N Lines : Each line will contain ith row elements (separated by space)

**Output Format :**

One Line for every possible solution.

Every line will have N\*N maze elements printed row wise and are separated by space. Only cells that are part of solution path should be 1, rest all cells should be 0.

**Sample Input 1 :**

3

1 0 1

1 0 1

1 1 1

**Sample Output 1 :**

1 0 0 1 0 0 1 1 1

Sample Output 1 Explanation :

Only 1 path is possible

**Sample Input 2 :**

3

1 0 1

1 1 1

1 1 1

**Sample Output 2 :**

1 0 0 1 1 1 1 1 1

1 0 0 1 0 0 1 1 1

1 0 0 1 1 0 0 1 1

1 0 0 1 1 1 0 0 1

Sample Output 2 Explanations:

4 paths are possible

**Q:-3**

**Crossword Problem**

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CodingNinjas has provided a crossword of 10\*10 grid. The grid contains '+' or '-' as its cell values. Now, you are also provided with word list which needs to placed accurately in the grid. Cells marked with '-' are to be filled with word list.

For example: The following is an example for the input crossword grid and the word list.

+-++++++++

+-++-+++++

+-------++

+-++-+++++

+-++-+++++

+-++-+++++

++++-+++++

++++-+++++

++++++++++

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Output for the given input should be:

+C++++++++

+A++T+++++

+NIGERIA++

+A++L+++++

+D++A+++++

+A++V+++++

++++I+++++

++++V+++++

++++++++++

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Note: We have provided such test cases that there is only one solution for the given input.

**Input format:**

The first 10 lines of input contains crossword. Each of 10 lines have a character array of size 10. Input characters are either '+' or '-'.

Next line of input contains the word list, in which each word is separated by ';'.

**Output format:**

Print the crossword grid, after placing the words of word list in '-' cells.

**Sample Test Cases:**

Sample Input 1:

+-++++++++

+-++-+++++

+-------++

+-++-+++++

+-++-+++++

+-++-+++++

++++-+++++

++++-+++++

++++++++++

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Sample Output 1:

+C++++++++

+A++T+++++

+NIGERIA++

+A++L+++++

+D++A+++++

+A++V+++++

++++I+++++

++++V+++++

++++++++++

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